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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
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| 09/986,907 | 11/13/2001 | Takeshi Mitsuishi | 8071.0007 | 6647 |

7590 03/24/2003

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EXAMINER

PRITCHETT, JOSHUA L

| ART UNIT | PAPER NUMBER |
|----------|--------------|
|----------|--------------|

2872

DATE MAILED: 03/24/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/986,907

Applicant(s)

MITSUBISHI ET AL.

Examiner

Joshua L Pritchett

Art Unit

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-- The MAILING DATE of this communication appears on the cover sheet with the corresponding address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 10 February 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-17 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1, 2 and 9-17 is/are rejected.
- 7) ☒ Claim(s) 3-8 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____
- 4) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other:

DETAILED ACTION

Claim Rejections - 35 USC § 102

The rejection of claims 1 and 2 under 35 USC-102(e) made in paper no. 6 is repeated.

Applicant's arguments with respect to claims 1 and 2 have been fully considered, but they are not persuasive for the following reason. The phrase "at least one" in column 7 lines 6-16, of the applied prior art also covers all the listed material, and the open language in the claim does not preclude the composition from having other materials than niobium oxide, zirconium oxide and yttrium oxide. Thus, claims 1 and 2 read on the prior art.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 9/1 and 10-14 are rejected under 35 U.S.C. 103(a) as being unpatentable over Belleville in view of Rahilly (US 4,116,717).

Regarding claim 9/1, Belleville teaches the use of vaporization of the compound (col. 1 lines 54-56) and deposition of the vapor onto the substrate (col. 1 line 51-53). Belleville lacks reference to the use of sintering of the compound prior to vaporization. Rahilly teaches the use of sintering an antireflective compound prior to applying the compound to a substrate (col. 3 lines 23-28). It would have been obvious to a person of ordinary skill in the art at the time the invention was made to use sintering as taught by Rahilly to form a solid mass of the compound prior to vaporizing the compound and depositing the compound on the substrate as taught by Belleville for the purpose of having a more uniform composition throughout the layer on the substrate and therefore obtaining more reliable results.

Regarding claim 10, Belleville teaches the substrate being made of plastic (col. 9 lines 16-17).

Regarding claim 11, Belleville teaches the plastic substrate having one or more coating layers (Fig. 4).

Regarding claim 12, Belleville teaches an ion-assisted process (col. 1 lines 56-57).

Regarding claims 13 and 14, Belleville teaches an alternating layer fashion (Fig. 4) and at least one layer of silicon dioxide (col. 16 lines 1-3).

Claims 15-17 are rejected under 35 U.S.C. 103(a) as being unpatentable over Belleville in view of Rahilly as applied to claims 9/1 and 12 above, and further in view of Asai.

Regarding claims 15 and 16, Belleville in combination with Rahilly teaches the invention as claimed but lacks reference to the use of a hard coat layer. Asai teaches the use of a hard coat layer (col. 1 lines 33-34). It would have been obvious to a person of ordinary skill in the art at

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the time the invention was made to use the Asai hard coat layer in the Belleville invention for the purpose of giving the antireflective element greater durability.

Regarding claim 17, Belleville teaches the optical element being a lens for spectacles (col. 13 line 36).

Allowable Subject Matter

Claims 3-8 objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims. The prior art of record fails to teach or suggest the specific composition of materials claimed in claims 3-8.

Response to Arguments

Applicant's arguments with respect to claims 1-2, filed February 10, 2003, have been fully considered but they are not persuasive. The applicant argued that the Belleville reference did not inherently teach the claimed combination of materials. The examiner agrees that the specific combination of materials is not inherently taught by Belleville; however the Belleville reference is sufficient to teach the presence of the claimed materials in a composition.

Applicant's arguments, see Paper No. 8, filed February 10, 2003, with respect to claims 3-8 have been fully considered and are persuasive. The rejection of claims 3-8 has been withdrawn.

Applicant's arguments with respect to claims 9/1 and 10-17 have been considered but are moot in view of the new ground(s) of rejection.

Applicant's arguments, see Paper No. 8, filed February 10, 2003, with respect to objections to claims 2-6 and 8 have been fully considered and are persuasive. The objection to claims 2-6 and 8 has been withdrawn, however the subject matter within the parenthesis was given no significant patentable weight during the examination process.


Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Joshua L Pritchett whose telephone number is 703-305-7917. The examiner can normally be reached on Monday - Friday 7:00 - 3:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Cassandra Spyrou can be reached on 703-308-1687. The fax phone numbers for the organization where this application or proceeding is assigned are 703-872-9318 for regular communications and 703-872-9319 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-0956.

JLP
March 19, 2003


James Phan
Primary Examiner